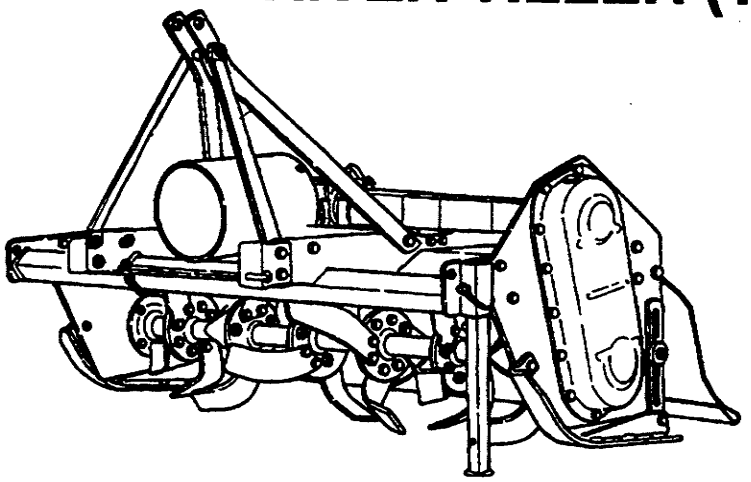
Simplicity®

Outdoor Power Equipment

Owner's Manual

50" REAR PTO DRIVEN TILLER (1692935)



ASSEMBLY, INSTALLATION AND MAINTENANCE INSTRUCTIONS

Important:

Read Safety Rules and Instructions Carefully

1719179

PRINTED IN U.S.A.

960-186B-3/98

INTRODUCTION

Read this manual carefully. It will instruct you on how to operate and service your machine safely and correctly. Failure to do so could result in personal injury and/or equipment damage.

This SAFETY-ALERT symbol means
ATTENTION! BE ALERT!
YOUR SAFETY IS INVOLVED!

When you see this symbol, be alert to the possibility of serious bodily injury or death. Carefully follow the instructions in the safety message.

This machine is of metric design. However, for your convenience, most specifications are given in metric measurements with the customary U.S. measurements following.

CAUTION: All hardware is metric. Only metric tools should be used. Other tools that do not fit properly can slip and cause injury.

Right-hand and left hand sides of the implement are determined by facing in the direction the implement will travel when going forward.

See Complete Warranty found on the inside back cover.

Record your implement model and serial number in the space provided below. Your dealer needs this information to give you prompt, efficient service when you order parts.

MODEL NO._____

SERIAL NO._____

DATE PURCHASED_____

This Product is manufactured exclusively for Simplicity by Befco, Inc. Please submit warranty and parts requests through your local dealer directly to:

Befco, Inc.
1781 S Wesleyan Blvd
PO Box 6036
Rocky Mount, NC 27803
Telephone: 919-977-9920
Fax: 919-977-9718

DEALER CHECKLIST

To the Dealer:

Inspect the machine thoroughly after assembly to assure it is functioning properly before delivering it to the customer. The following checklist is a reminder of points to cover. Check off each item as it is found satisfactory or after proper adjustment is made.

PREDELIVERY CHECKLIST

- ☐ 1. Gearbox oil level
- ☐ 2. Guards and shields properly fastened
- ☐ 3. Lubrication of grease fittings
- ☐ 4. All hardware properly tightened
- ☐ 5. All decals properly located and readable
- ☐ 6. Blades properly installed and tightened
- ☐ 7. Other adjustments for machine level, height, PTO length, etc.
- ☐ 8. Overall condition (touch up any scratches, clean and polish)
- ☐ 9. Test run, check for excessive vibration or overheating of bearings
- ☐ 10. Operator's Manual

DATE SET UP _____

SIGNATURE_____

DELIVERY

Review the operator's manual with the customer. Explain the following:

- ❒ 1. Simplicity warranty
- ❒ 2. Safe operation and service
- ❒ 3. Correct machine installation and operation
- ❒ 4. Daily and periodic lubrication and maintenance
- ❒ 5. Correct lubricants
- ❒ 6. Daily and periodic inspections
- ❒ 7. Trouble shooting
- ❒ 8. Removing and storing machine
- ❒ 9. Simplicity parts and service
- ❒ 10. Have the customer write the machine model and serial number in space provided in manual introduction
- ❒ 11. Give customer the operator's manual and encourage the customer to read the manual carefully
- ❒ 12. Remove and file this page

DATE DELIVERED_____

SIGNATURE_____(Dealer)

SIGNATURE_____(End User)

Model No._____

Serial No._____

TABLE OF CONTENTS

INDEX

1	**- General Information**	**Page 6**
1.01	- Safety Symbols	6
1.02	- General	6
2	**- Safety Decals**	**7**
2.01	- Safety Precautions and warning and safety decals	8
3	**- Operation**	**9**
3.01	- Setup and Lubrication	9
3.02	- Side Shift	11
3.03	- Depth control	11
3.04	- Rear shield adjustments	12
3.05	- Pre-operational checklist	12
3.06	- Attaching to the tractor	13
3.07	- Operating technique	13
3.08	- Test Run	14
3.09	- Setting Depth	14
3.10	- Working Speed	14
3.11	- Finer Pulverization	14
3.12	- Headland Procedure	14
3.13	- Gullies or Ditches Procedures	15
3.14	- Working limitations	15
3.15	- Transporting	15
3.17	- Safety Shear pin Coupler	16
4	**- Maintenance**	**17**
4.01	- Lubrication	17
4.02	- Blades	17
4.03	- Storage	18
	-Torque Specifications	**19**
	-Troubleshooting	**20**
	-Parts Breakdown	**22**
	-Warranty	**35**

GENERAL INFORMATION

Thank you and congratulations for having chosen our tiller. Your new side shift tiller is a technologically advanced machine constructed of high quality sturdy components and will fulfill your working expectations.
Read this manual carefully . It will instruct you on how to operate and service your machine safely and correctly. Failure to do so could result in personal injury and or equipment damage.

1.01 - Safety Symbol

This symbol means ATTENTION, BE ALERT! YOUR SAFETY IS INVOLVED!

CAUTION

CAUTION Is used for general reminder of good safety practices, or to direct attention to unsafe practices.

WARNING

WARNING denotes a specific potential hazard.

DANGER

DANGER denotes the most serious specific potential hazard.

1.02 - General

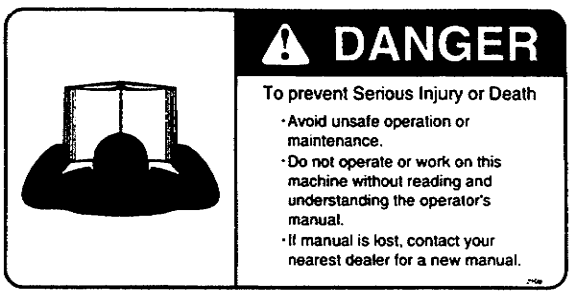
CAUTION

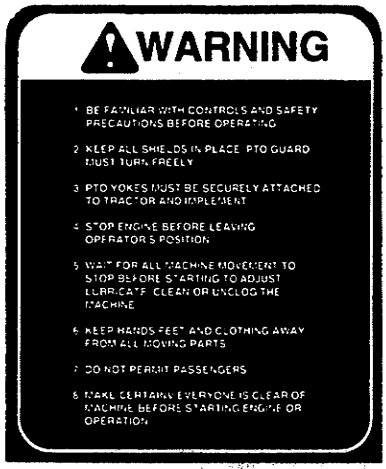
CAUTION: All hardware is metric. Only metric tools should be used. Other tools that do not fit properly can slip and cause injury.

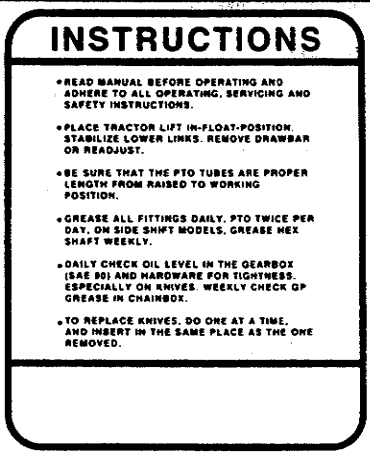
Right hand and left hand sides of the implement are determined by facing in the direction the implement will travel when going forward.

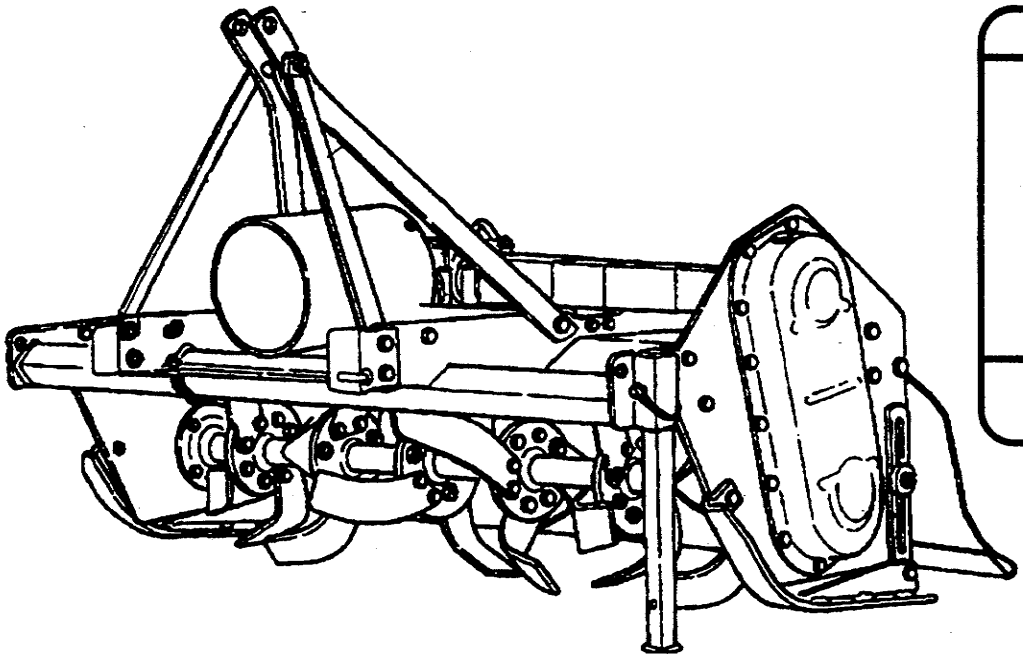
SAFETY DECALS

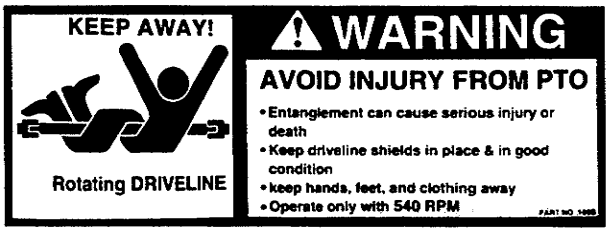
Fig. 2 Safety Decals; Replace Immediately if Damaged

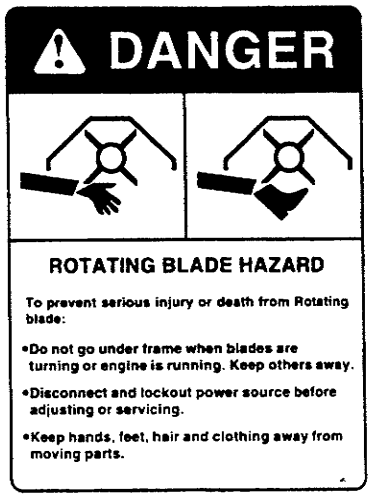

DANGER
To prevent Serious Injury or Death
·Avoid unsafe operation or maintenance.
·Do not operate or work on this machine without reading and understanding the operator's manual.
·If manual is lost, contact your nearest dealer for a new manual.


WARNING
1 BE FAMILIAR WITH CONTROLS AND SAFETY PRECAUTIONS BEFORE OPERATING
2 KEEP ALL SHIELDS IN PLACE. PTO GUARD MUST TURN FREELY
3 PTO YOKES MUST BE SECURELY ATTACHED TO TRACTOR AND IMPLEMENT
4 STOP ENGINE BEFORE LEAVING OPERATOR'S POSITION
5 WAIT FOR ALL MACHINE MOVEMENT TO STOP BEFORE STARTING TO ADJUST LUBRICATE CLEAN OR UNCLOG THE MACHINE
6 KEEP HANDS FEET AND CLOTHING AWAY FROM ALL MOVING PARTS
7 DO NOT PERMIT PASSENGERS
8 MAKE CERTAIN EVERYONE IS CLEAR OF MACHINE BEFORE STARTING ENGINE OR OPERATION


INSTRUCTIONS
•READ MANUAL BEFORE OPERATING AND ADHERE TO ALL OPERATING, SERVICING AND SAFETY INSTRUCTIONS.
•PLACE TRACTOR LIFT IN-FLOAT-POSITION. STABILIZE LOWER LINKS. REMOVE DRAWBAR OR READJUST.
•BE SURE THAT THE PTO TUBES ARE PROPER LENGTH FROM RAISED TO WORKING POSITION.
•GREASE ALL FITTINGS DAILY. PTO TWICE PER DAY. ON SIDE SHIFT MODELS, GREASE HEX SHAFT WEEKLY.
•DAILY CHECK OIL LEVEL IN THE GEARBOX (SAE 80) AND HARDWARE FOR TIGHTNESS. ESPECIALLY ON KNIVES. WEEKLY CHECK GP GREASE IN CHAINBOX.
•TO REPLACE KNIVES, DO ONE AT A TIME, AND INSERT IN THE SAME PLACE AS THE ONE REMOVED.




KEEP AWAY!
Rotating DRIVELINE
WARNING
AVOID INJURY FROM PTO
•Entanglement can cause serious injury or death
•Keep driveline shields in place & in good condition
•keep hands, feet, and clothing away
•Operate only with 540 RPM


DANGER
ROTATING BLADE HAZARD
To prevent serious injury or death from Rotating blade:
•Do not go under frame when blades are turning or engine is running. Keep others away.
•Disconnect and lockout power source before adjusting or servicing.
•Keep hands, feet, hair and clothing away from moving parts.

SAFETY PRECAUTION

1. **Read this manual carefully before beginning any operation.**
2. **Allow only properly trained personnel to operate this implement.**
3. Assure that you have a clean working area clear of obstacles before starting operations.
4. **Read and adhere to all safety and operating decals on this machine.**
5. **Never attempt to make adjustments to this machine while tractor engine is switched on and the rotor is turning.**
6. Thoroughly inspect implement, before initial operation, to assure that all packaging materials, i.e. wire, band, tape, have been removed.
7. Be certain that all hardware is properly tightened (especially the side-shift locking clamps and blade bolts as shown on Table 1).
8. Be sure that the tractor is in neutral position before starting engine.
9. Before engaging PTO, lift tiller clear of the ground by no more than 1 1/2" - 2".
10. Assure that no one is near the machine prior to engaging or while the machine is working.
11. **Never allow passengers.**
12. **Never operate without proper shields in place.**
13. Do not cross the face of slopes. See the operation section of this manual for headland and gullies procedure.
14. After striking an obstacle, disengage PTO, shut tractor down, and thoroughly inspect for damage before restarting.
15. **Make no repairs or adjustment with tractors engine running.**
16. Be sure to lock the tractor brake and lower the machine to the ground when completing work.
17. Check machine for loose hardware as often as possible and for hazards at regular intervals.
18. Use only the drive line supplied with the tiller. Do not use if missing any shield or safety protection.
19. The tiller weight may unbalance the tractor. If necessary add front weights to ensure balance.
20. Follow all local law and traffic regulations during transportation.

2.01 - Warning and safety decals

Additional Warning and Operating Decals are available at no extra charge.

OPERATION

Please specify Model and Serial number when ordering parts. See previous page for Decals. You have purchased a rotary tiller designed especially for landscaping, gardening, and tilling with small and medium sized tractors especially around fruit trees and in vineyards or greenhouses. It is an ideal machine for the professional hobby farmer. In fact, because of its side-shift capability, your tiller can be positioned to till next to trees and shrubs, along sidewalks, etc. It can also be shifted completely to the right in order to cover the tractor tire tracks. This is particularly important when dealing with narrower tillers or with tractors equipped with especially wide tires.

The three point hitch can also remain positioned in the center to work like a normal center mount tiller.

On your tiller, the tractor PTO transmits its power through a drive line to a speed reduction gearbox. This gearbox turns a hexagonal drive shaft to which a chain sprocket is attached. A chain transfers power from the drive chain sprocket to a driven chain sprocket connected to a tilling bladed rotor. The rotor speed is set at the optimum speed to ensure ideal tillage conditions.

Note: All reference to right or left in this manual are determined by facing in the direction the implement will travel when going forward.

3.01 - Setup and Lubrication

Fig. 4

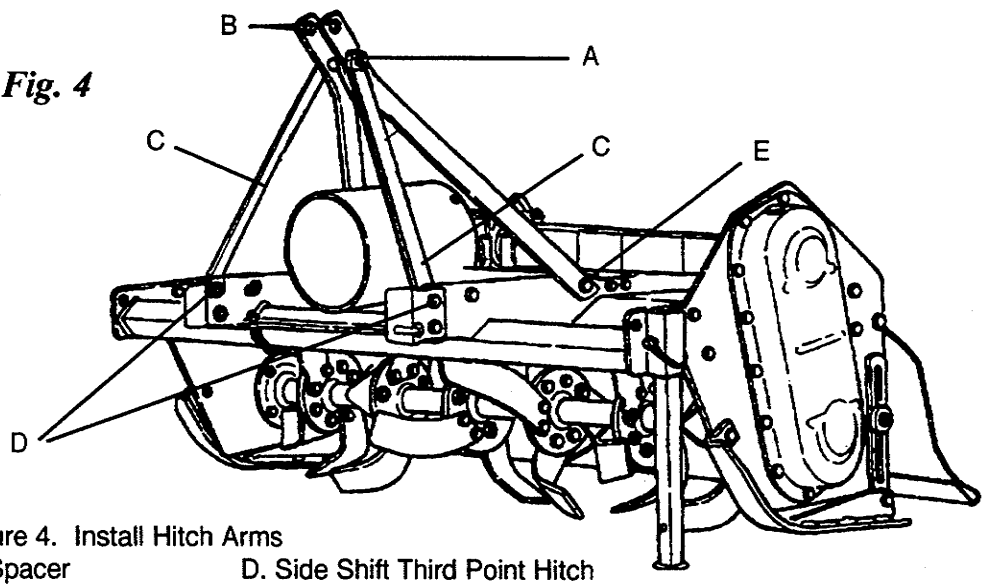


Figure 4. Install Hitch Arms

A. Spacer	D. Side Shift Third Point Hitch (Use these Holes)
B. Hitch Arms	
C. Hitch Supports	E. Hitch Arm Mounting Hole

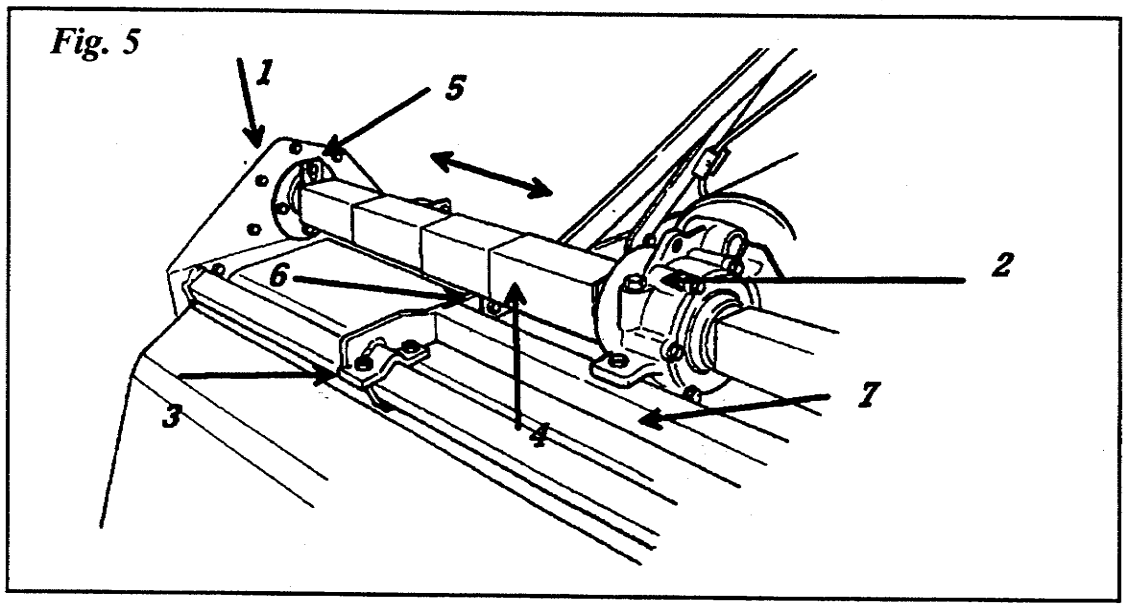
⚠ CAUTION

1. **CAUTION: Disassemble top and sides of the crate. Cut wires holding drive line. Leave machine banded to pallet as long as possible to avoid tipping over during assembly. Stand clear of bands when cutting as they could be under sufficient tension to cause them to fly loose.**

OPERATION

2. Loosen bolts holding upper hitch mast in place in the shipping position.
3. Using the 12mm x 90mm bolt, bolt together the upper mast spacer (A, Figure 2), the two hitch arms (B), and two 10" hitch supports (C). Place the spacer between the left hitch arm and the right hitch arm. Use the second hole as shown. Do not tighten until it is assembled onto the tiller.
4. Place the two spacers (item 84, Figure 1) inside the top forward holes on the side shift 3rd point hitch (D, Figure 2).
5. With the Right and Left Plates mounted (items 81 and 90, Figure 1) on the outside of the hitch (D, Figure 2) and the Top Hitch support (C, Figure 2) to the inside, secure all in place at D. Figure 2 with the 12 x 60 bolt (item 85).
6. Bolt the two top hitch arms (B, Figure 2) into the hitch using the front bolt hole (E) of the three holes under the hex shaft as shown.

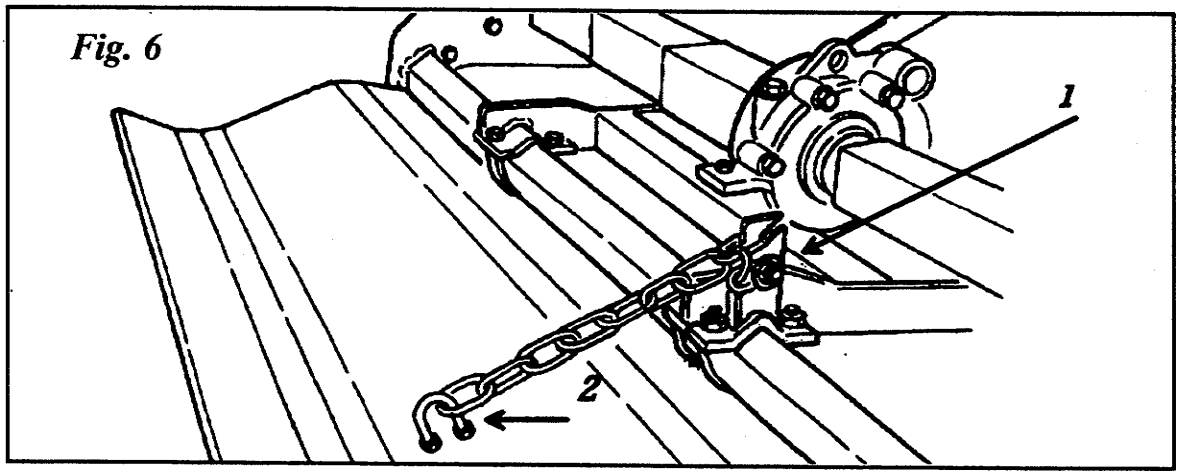
Fig. 5



7. Screw the plastic PTO shaft protection (item 45, Figure 1) onto the PTO protection support (item 44).
8. Tighten all bolts holding the Mast to the tiller hitch.
9. Tighten the 12 x 90 mm bolt (item 70, Figure 1) at the top of the mast making sure it is straight before tightening.
10. Lower the stand to support the tiller. See fig. 5.
11. Ensure the breather plug is screwed into the chain case. (#1 Fig. 5) Check the gearbox oil level (#2 Fig. 5). It should be between 1/2 and 2/3 full. Use SAE 90.
12. Check all hardware for proper torque. Use Table 1.
13. After shifting side shift into its desired position, lock it into position with both the front and rear locking clamps (#3 Fig. 5). See Side Shift section of this manual. Grease drive line cross and bearing assemblies. Grease sliding sections of shaft.

14. The hexagonal drive shaft is protected by a telescopic sliding shield (#4, fig. 5). To attach this shield do the following: bolt the upright tab to the chain case side plate (#5, fig. 5); open the telescopic shield and bolt the outer cover (#6, fig. 5) to the retaining plate on the sliding frame (#7, fig. 5); ensure the telescopic shielding when open does not touch the hexagonal shaft and is parallel as possible; slide the frame) back two-three times from completely open to completely closed to be sure it opens and closes without difficulty. **Note: Lightly greasing the hexagonal drive shaft helps the side shifting of the tiller.**
15. Grease right rotor support bearing.
16. Hook up the rear shield adjustment chain as follows: Slip one end of the chain through the U bolt and then bolt it to the rear shield in the predisposed holes (see #2, fig. 6). Bolt the other end of the chain to the chain hitch located on the tiller frame (see #1, fig. 6). Ensure it is tightened properly.

Fig. 6



3.02- Side Shift

To side shift the tiller from the center mount position, do the following:

1. Loosen the nuts (#1 Fig. 7) holding the locking clamps to the front and rear of the gearbox housing. Do not remove.
2. Push the sliding frame to the left to its new desired position. **Do not shift it right of center.**
3. Re-tighten nuts.

Fig. 7

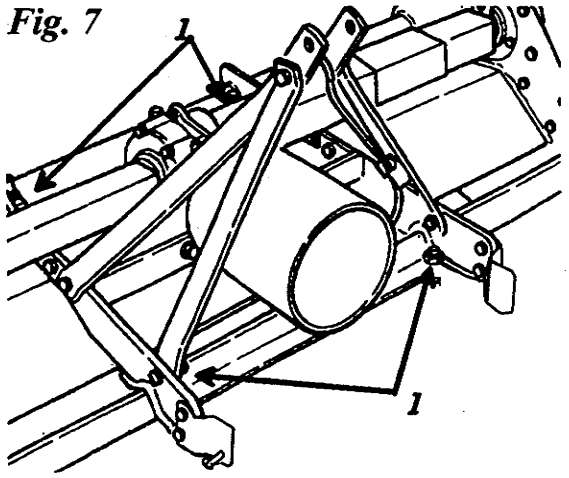
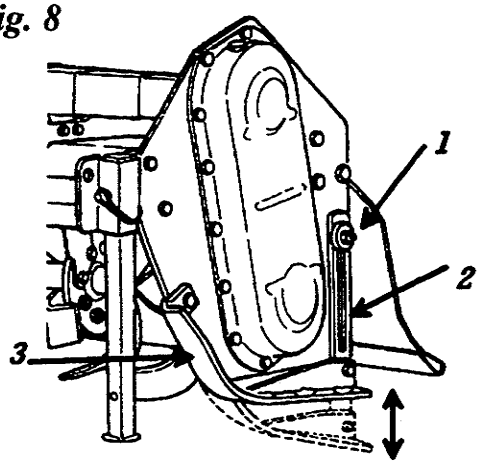


Fig. 8



3.03 - Depth control

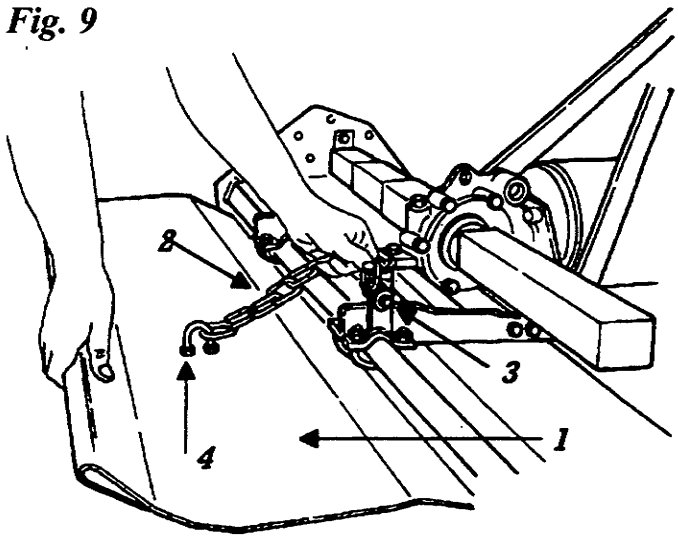
The tilling depth is at its maximum when the skids are touching the side plates. The more they are lowered the shallower the tiller works. Thus the tilling depth is controlled by raising and lowering the side skids. To do this:

1. Loosen the nut (#1, fig. 8) on the adjustement arm(#2, fig. 8).
2. Place the skid (#3, fig. 8) in the desired position.
3. Re-tighten the nut # 1 on the adjustment arm # 2.
4. Repeat this operation on the other skid, ensuring both skids are level.

3.04 - Rear shield adjustments

The rear shield, for safety reasons, must always remain in contact with the ground. This also ensures better pulverization of the soil and helps level it out.
Raise rear shield (#1, fig. 9) to the desired position. Hook the chain (#2, fig. 9) to the chain hitches (#3 & 4, fig. 9).

Fig. 9



1. rear shield
2. chain
3. top chain hitch
4. bottom chain hitch

OPERATION

3.05 - Pre-operational checklist

Check each of the following carefully prior to engaging tiller.

1. The rotor bearing has been greased and the drive chain is lubricated.
2. The oil in gearbox is between 1/2 and 2/3 full.
3. The drive line cross & bearings have been greased.
4. No wrappings or foreign objects are on the machine or drive line.
5. The blades are properly installed and the blade bolts and nuts properly torqued.
6. All hardware is tight.
7. Check the tractor to ensure correct direction of PTO and rpm speed.
8. Ensure all safety shields and guards are in there place and tightly attached.
9. No persons or animals are in the work area.
10. When working, make sure the tractor hitch is in the "lowest" position, in order to allow the tiller to follow the contour of the ground

⚠ CAUTION

Engage the tractor PTO only when the tiller blades are 1 1/2" to 2" from the ground .

3.06- Attaching to the tractor.

⚠ DANGER

DANGER: Never attempt to attach the tiller to the tractor or make any adjustments to the tiller without first turning the tractor off. Unit may be used on tractors equipped with a standard rear PTO and CAT O, three point hitch. To be sure your specific model tiller is suited for your particular tractor, check Table 2.

⚠ CAUTION

CAUTION: Check the tractor PTO rpm to ensure it turns clockwise.

To attach the tiller to the tractor, back the tractor up to the tiller in order to slip the tractor hitch arms over the hitch pins attached to the sliding frame. **Turn off the tractor engine.**

Lock the three point arms to the tiller hitch arms with the lynch pins.
Stabilizers must be used to limit side swing to 2"-3".
Attach the top link. Adjust it so the tiller is as near parallel to the ground as possible. A 1 to 2 degree rearward tilt is acceptable.
Install the shielded drive line to the tractor by first lining up the splines and depressing the snap pin. Push the yoke onto the PTO shaft as far as it will go. Release the pin and pull back slowly until the pin clicks in place.
If the implement is supplied with a shear-pin, repeat this operation on the implement end.
Reinstall PTO protective cover.

OPERATION

3.07 - Operating technique

Begin tilling at the slowest ground speed possible, increasing until the desire speed is reached. Engage the PTO with the tiller just clear of the ground. Open the throttle to full power and lower the tiller into the ground.

3.08 - Test Run

After running the tiller 120-150 ft., raise the machine and just as the blades lift up from the soil, disengage the PTO, lower the tiller and shut off the tractor engine. Assure that the machine is properly adjusted and functioning properly. After the first five minutes of operation, stop and feel the gearbox. It should be warm to the touch; not hot.

3.09 -Setting Depth

Depth of cut is determined largely by the condition of the ground. When working hard or previously unworked ground, set depth at no more than 2"-3". Greater depth may require a second pass.

NOTE: excessive vibration or jumping of the machine is an indication that the machine is working too deep for conditions, such as hard, parched or compacted soil, and should be adjusted accordingly.

3.10- Working Speed

Ground speed is determined by the soil condition, depth of cut, and tractor power. Simple experimentation will soon determine the best speed for the desired results (usually 1 to 2 miles per hour).

3.11 -Finer Pulverization

A slow ground speed will result in a finer soil, as a faster ground speed will render the opposite. The rear shield, besides being a safety device, will help in producing a finer worked soil. Test results show that a raised shield will leave a coarser finished surface.

3.12 - Headland Procedure

When the headland is reached, it is important that the following be observed:

1. Raise the tiller from the ground and as soon as the blades leave the ground, disengage the tractor PTO.
2. Turn the tractor facing the new desired direction of travel.
3. Begin tilling again, as indicated in paragraph 3.07.

OPERATION

NOTE: Best practice dictates that the machine be lifted no more than just enough to clear the ground. Running the tiller at an extreme angle could damage the PTO.

3.13 - Gullies or Ditches Procedures

When crossing gullies or ditches, lift the tiller slightly and allow it to walk through the gully.

NOTE: The tiller will tend to push the machine and you should be prepared to allow for this.

3.14 - Working Limitations

1. If the tiller won't penetrate the ground easily, conditions may be too dry, tough or compacted. (Also assure that the blades are properly installed with the proper scroll. See fig. 16.) This condition is evidenced by vibration and jumping of the machine.
2. The combination of excessively hard ground and rocky conditions will greatly reduce the life of the blades. Under these extreme conditions it may be wise not to use the tiller as primary tillage tool, thus running over the ground with a disc or plow prior to tilling is advised.

3.15 -Transporting

⚠ CAUTION

CAUTION: All operations of transport are to be done without the tiller working, and respecting all local traffic rules and regulations.

During transport lift tiller to highest lift position and be sure PTO is disengaged.

3.17 -Safety Shear pin Coupler

In the case of a shear pin breaking (the operator will notice that the tiller will stop even though the tractor PTO is still engaged), disengage the PTO, stop and turn off the tractor. **Replace the broken shear bolt with another having the identical characteristic of the original .**

Substituting different shear bolts other than those indicated by the manufacturer can render the safety inoperable.

USE 6mm x 40 Grade 5 Shear Bolt Only

⚠ CAUTION

CAUTION: Always work with the drive line as straight as possible. This will prolong its life and that or its components. It is advised, not to work at an angle greater than 15 degrees.

MAINTENANCE

⚠ CAUTION

CAUTION: Any and all maintenance operations must be done with the tractor PTO disengaged, the tiller on firm ground and supported securely. The tractor must be turned off with the key removed. Be sure to use all appropriate safety equipment when working with this equipment, ie. safety goggles, protective gloves, etc.

4.01 - Lubrication

1. **Hourly**: remove any wrapping (stalks, weeds, trash, etc.) from tiller, especially from around bearing supports on the rotor ends.
2. **Every four hours**: ensure bolts holding the sideshift are tight.
3. **Daily:** Ensure blades are not broken and bolts are tight. Grease the rotor support, the driveline cross & bearings and telescopic tubes. Check the gearbox for oil level (SAE 90 wt).
4. **Weekly:** Check the blades for excessive wear or damage. Ensure the rotor turns freely. Look at the chain in the chain case and make sure it is well lubricated..

After the first 200 hours: Remove the chain case cover (being sure not to damage the gasket), clean the chain sprockets with kerosene, replace the sprockets and reassemble using fresh GP Grease (approximately) 2.2 lb.).

NOTE: for models equipped for faster Rotor RPM, GP 90 oil may be used to replace the grease in the chain case. The gearbox should use a non-detergent 30 wt.

4.02 - Blades

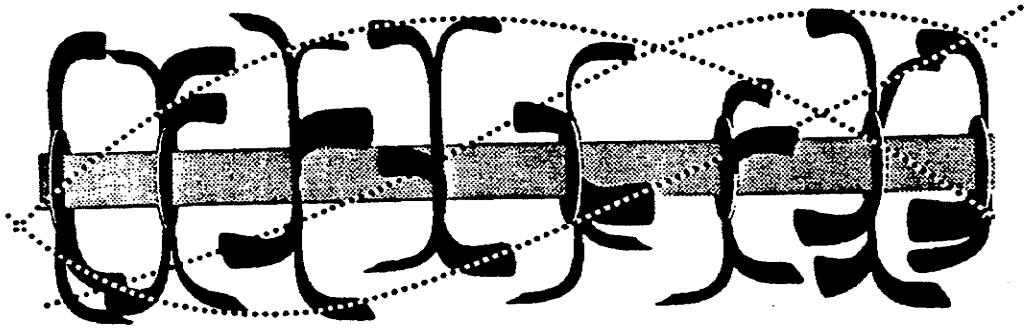


Fig. 16

⚠ DANGER

When replacing blades, take extreme care and always use proper gloves. Blades are sharp. Always work in such a way as to pull the wrench towards you when tightening

bolts to avoid slipping and cutting your hand.
It is important to change blades after **they have worn down 1 to 1 1/4"** from their original length. When replacing blades, it is best to replace them one at the time to maintain the original scroll pattern. If, however, it becomes necessary to completely remove them all, **it is essential to maintain the scroll pattern of the blades** (see fig. 16). To do this, remove one blade and immediately replace it with a new one. Be sure the bolt head (see # 3, fig. 17) is touching the blade # 4, while the washer # 5 and nut # 6 contact the flange. Sometimes a locknut is used instead of a lockwasher and nut. Proceed until all blades needed to be changed are changed.
After putting on the new blades, tighten the nuts to their proper torque specifications.

To determine if the blade is right or left hand:
Hold the blade in the palm of the hand with the bend pointing upward.
if the cutting edge points toward the right then the blade is right-handed,
pointing to the left indicates a left-handed blade.

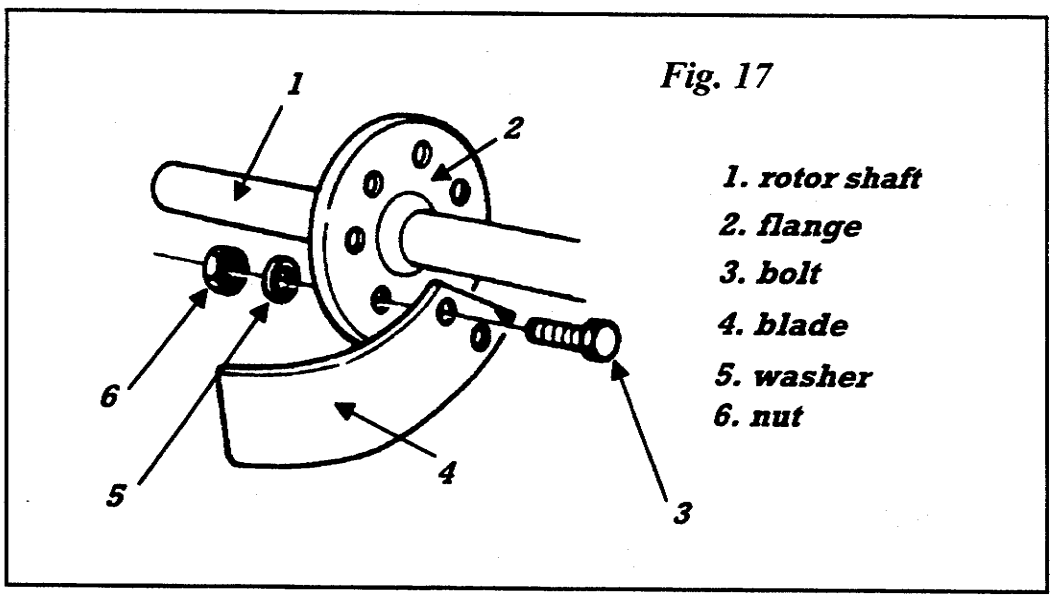


Fig. 17

1. rotor shaft
2. flange
3. bolt
4. blade
5. washer
6. nut

4.03- Storage

After seasonal use it is important to perform the following for prolonged storage:
Wash the tiller carefully.
Inspect the tiller and replace worn or damaged parts.
Tighten all hardware. Grease all areas indicated under MAINTENANCE.

MAINTENANCE

Cover the tiller from the elements in order to have it in perfect conditions fot the start of the next season.

TABLE 1: METRIC TORQUE SPECIFICATIONS

Diameter	Class 8.8		Class 10.9	
	N.m.	lb-ft	N.m.	lb-ft
M 8	25	18	35	26
M 10	50	37	70	52
M 12	90	66	125	92
M 14	140	103	200	148
M 16	215	155	305	225
M 18	295	217	420	309
M 20	420	302	590	438

When using locking nuts, increase torque values by 5%.

TROUBLESHOOTING

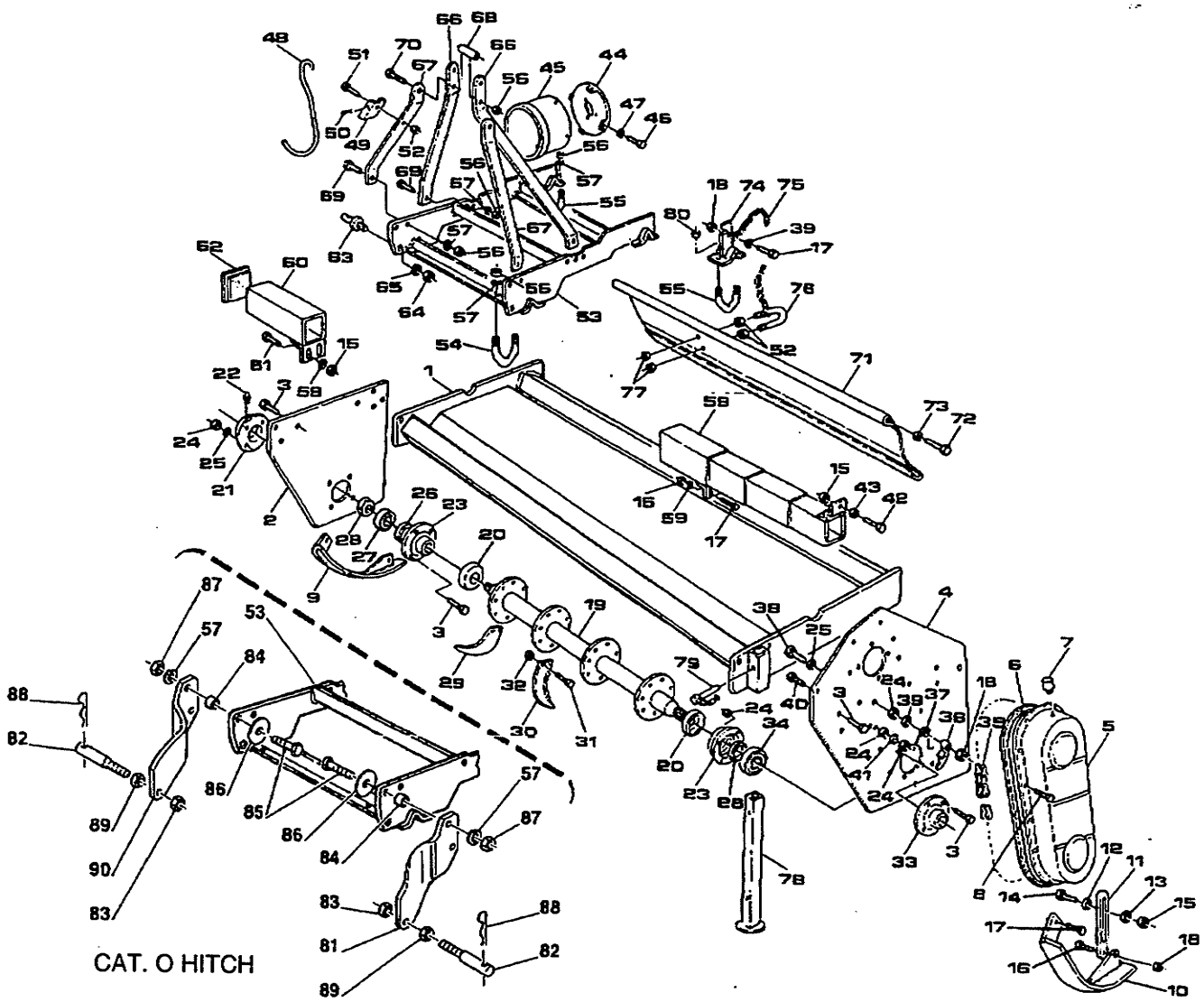
⚠ DANGER

SWITCH OFF TRACTOR ENGINE AND BE SURE NO PART OF THE TILLER OR TRACTOR IS MOVING BEFORE TOUCHING OR REPAIRING MACHINE.

PROBLEM	DIAGNOSIS
Machine makes intermittent clicking noise.	Stop immediately and check for loose blades. If noise persists, check for gearbox tooth damage or damaged chain.
PTO vibrates.	Check for worn cross and bearings. Machine lifted too high. Check for wrappings on rotor shaft.
Gearbox noise is noticeable and constant.	This can be normal on a new machine until it has been run in. CHECK OIL LEVEL.
Blades stop turning but PTO, gearbox and countershaft are operating.	Remove chaincase and check for broken connector link.
PTO turning but blades not.	Check shear bolt. If sheared, replace.
Machine skips and leaves crop residue.	Check for badly worn blades. If worn down to tip, overlap will be lost and cutting will deteriorate. Replace only worn blades. Check clutch if fitted. If slip clutch is used, check performance.
Machine smells hot or begins to smoke.	Can be caused by friction from trash heavily wrapped around bearing protection covers. Remove trash immediately; as damage to bearing could result. Check oil level. Check slip clutch if fitted. Adjust if needed.
Oil leaking from gearbox.	Check oil seals for damage. Gearbox could be overfilled and excess being pushed out.
Gearbox overheating.	Check oil level. Check for bearing damage.

NOTES

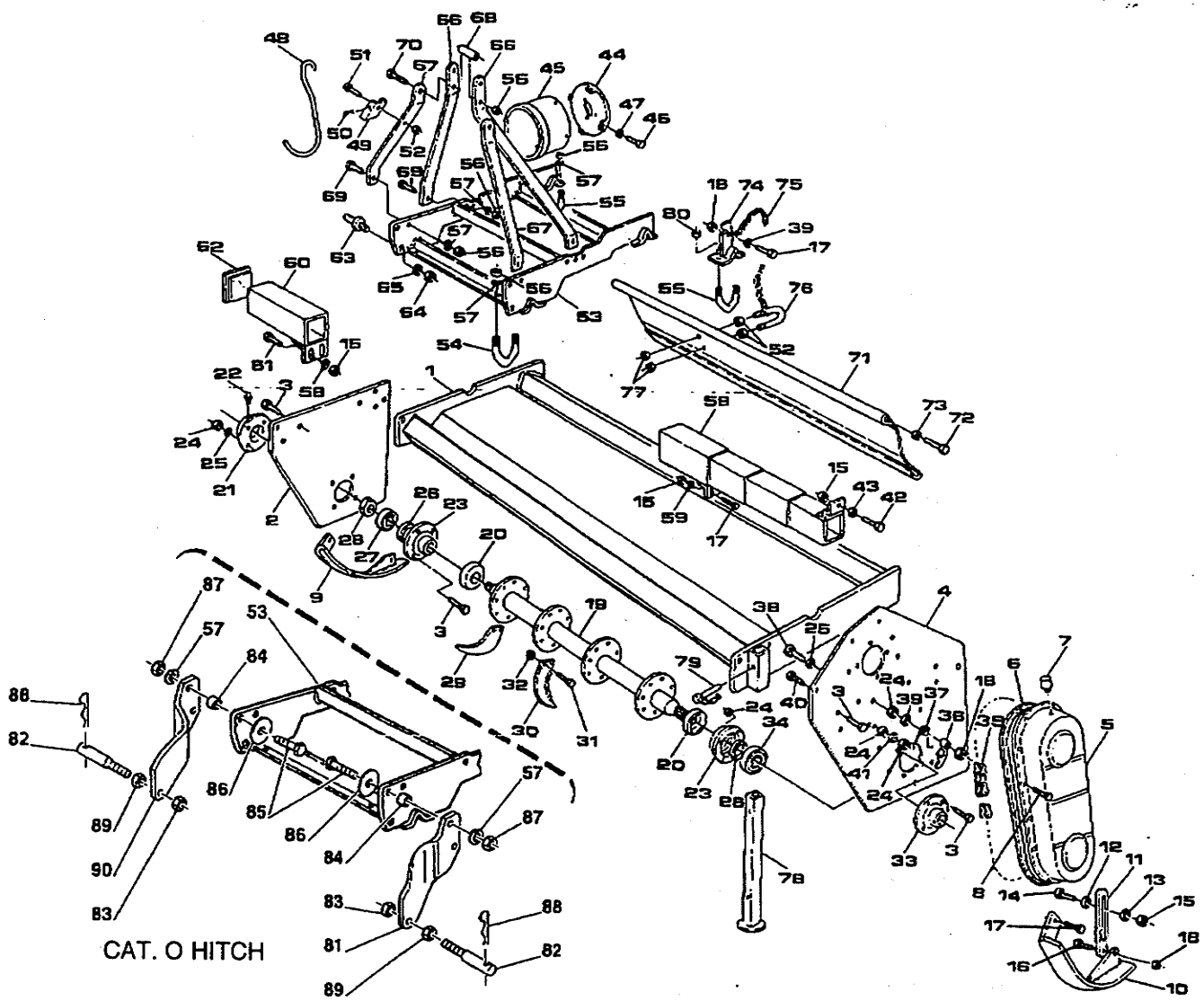
FRAME
REAR PTO-DRIVEN TILLER



FRAME
REAR PTO-DRIVEN TILLER

ITEM #	BEFCO PART #	DESCRIPTION	QTY.
1	031 0002	Frame 50"	1
2	001 1011	Right side panel	1
3	000 1241	Bolt 10x25	20
4	001 1021	Drive panel	1
5	001 1030	Chain case cover	1
6	002 2032	Gasket	1
7	001 0035	Breather cap	1
8	000 1046	Bolt 10x20	12
9	011 1041	Skid right	1
10	021 1041	Skid left	1
11	002 1051	Adjustment arm	2
12	002 1052	Threaded washer	2
13	002 1053	Washer	2
14	003 0331	Bolt 10x45	2
15	000 1279	Nut M10	7
16	000 1008	Bolt 10x30	2
17	000 1278	Bolt 10x30	5
18	003 0156	Nut M10	6
19	033 4081	Rotor 50"	1
20	002 2074	Dirt shield	2
21	003 0091	Outer cover right	1
22	000 1065	Grease fitting	1
23	003 0092	Cover	2
24	000 1010	Nut M10	18
25	000 1011	Washer M10	14
26	003 4098	Oil-seal 40.60.10	2
27	003 0094	Bearing 6306	1
28	003 0095	Safety nut M30x1.5	1
29	003 0104D	C-blade right	-
30	003 0104S	C-blade left	-
31	002 1104	Bolt 12x30	-
32	002 1105	Nut M12	-
33	001 0102	Outer cover left	1
34	002 5332	Bearing 6207	1
35	001 0125	Chain ASA 60x46	1
36	003 0148	Chain tensioner	1
37	003 0158	Spring	1
38	017 7168	Bolt 10x65	1
39	003 0157	Flat washer M10	2
40	000 1101	Bolt 10x45	1

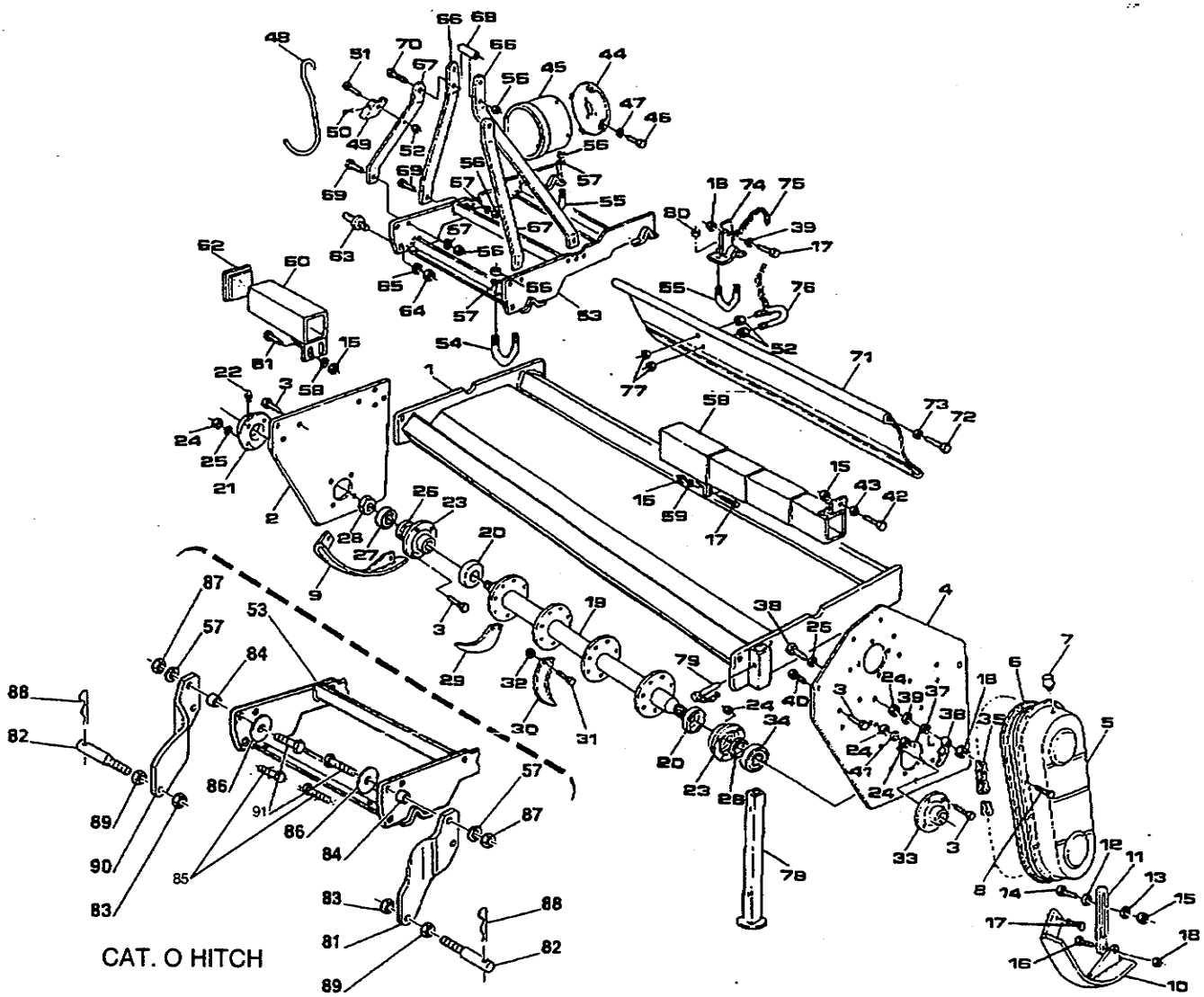
FRAME
REAR PTO-DRIVEN TILLER



FRAME
REAR PTO-DRIVEN TILLER

ITEM #	BEFCO PART #	DESCRIPTION	QTY.
41	000 2034	Flat washer M10	1
42	002 6329	Bolt 10x45	1
43	009 0150	Nut M10	1
44	001 1201	Protection support	1
45	001 1207	Pto shaft protection	1
46	001 1210	Bolt 6x12	4
47	001 1209	Flat washer M6	4
48	002 2433	Driveline hook	1
49	002 2435	Hook support	1
50	005 4422	Cotter pin D.2	1
51	001 5012	Bolt 8x20	1
52	000 1806	Nut M8	3
53	001 1241	Side shift 3rd point hitch	1
54	001 1251	U bolt	12
55	001 1253	U bolt	13
56	000 3038	Nut M12	14
57	000 1077	Washer D.12	14
58	021 1260	Protection 50"	1
59	000 1280	Washer M10x4	2
60	021 1265	Right protection 50"	1
61	003 8614	Bolt 10x40	2
62	001 1273	Plastic cap	1
63	000 5550	Hitch pin	2
64	000 5542	Nut M20	2
65	000 5351	Washer M20	2
66	001 1282	Top hitch arm	2
67	001 1386	Top hitch support	2
68	001 1398	Spacer	1
69	002 3265	Bolt 12x40	4
70	001 5122	Bolt 12x90	1
71	033 0303	Tail gate 50"	1
72	003 0309	Bolt 16x70	2
73	000 3124	Nut M16	2
74	001 1311	Chain hitch	1
75	001 0318	Chain	1
76	001 1327	U bolt	1
77	001 1328	Nut M8	2
78	001 1332	Stand	1
79	001 1333	Cotter pin 10x70	1
80	003 0064	Nut M12	2

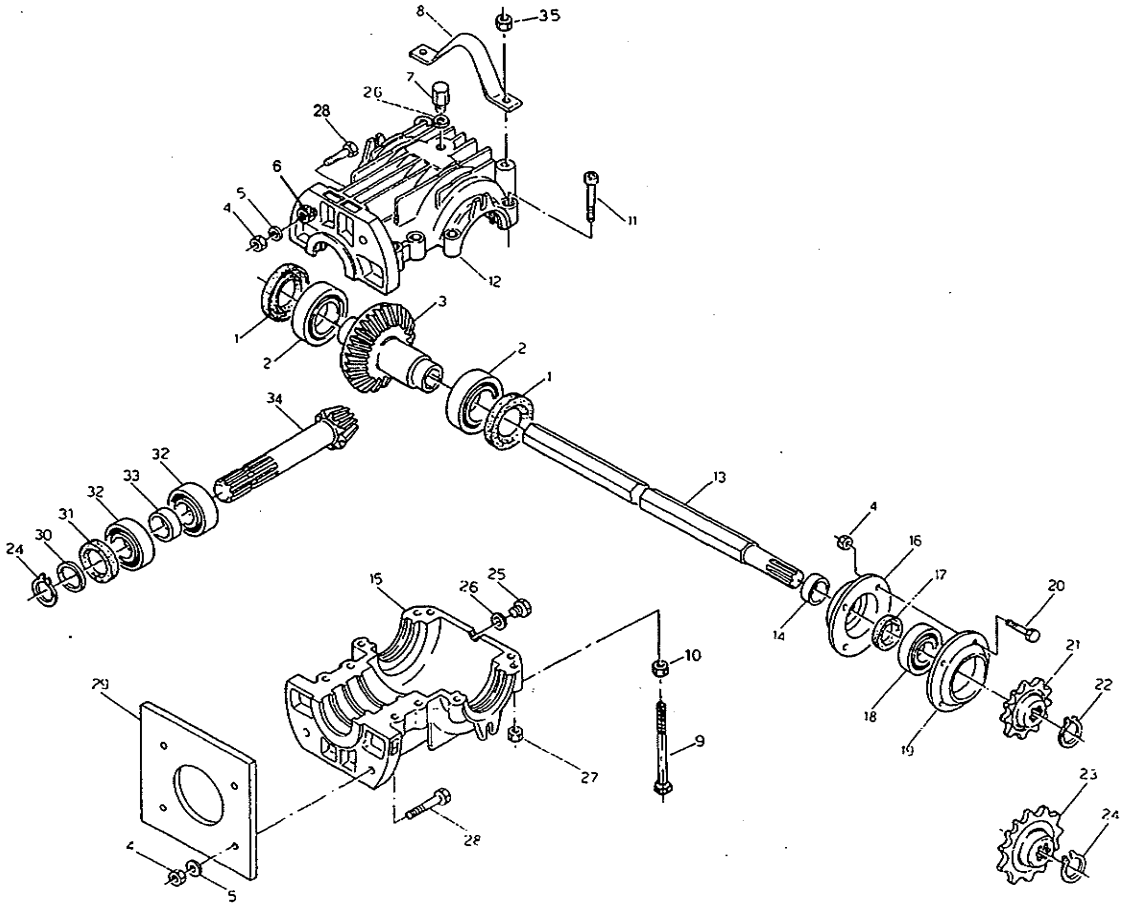
FRAME
REAR PTO-DRIVEN TILLER



FRAME
REAR PTO-DRIVEN TILLER

ITEM #	BEFCO PART #	DESCRIPTION	QTY.
81	021 1401	Left Plate	1
82	001 1403	Lower Hitch	2
83	004 1165	Nut M16	2
84	001 1388	Spacer	4
85	003 0054	Bolt 12x50	2
86	007 6106	Flat Washer M12	2
87	003 0064	Nut M12	4
88	001 1417	Safety Clips	2
89	004 1165	Nut M16	2
90	001 1401	Right Plate	1
91	002 1257	Bolt 12x60	2

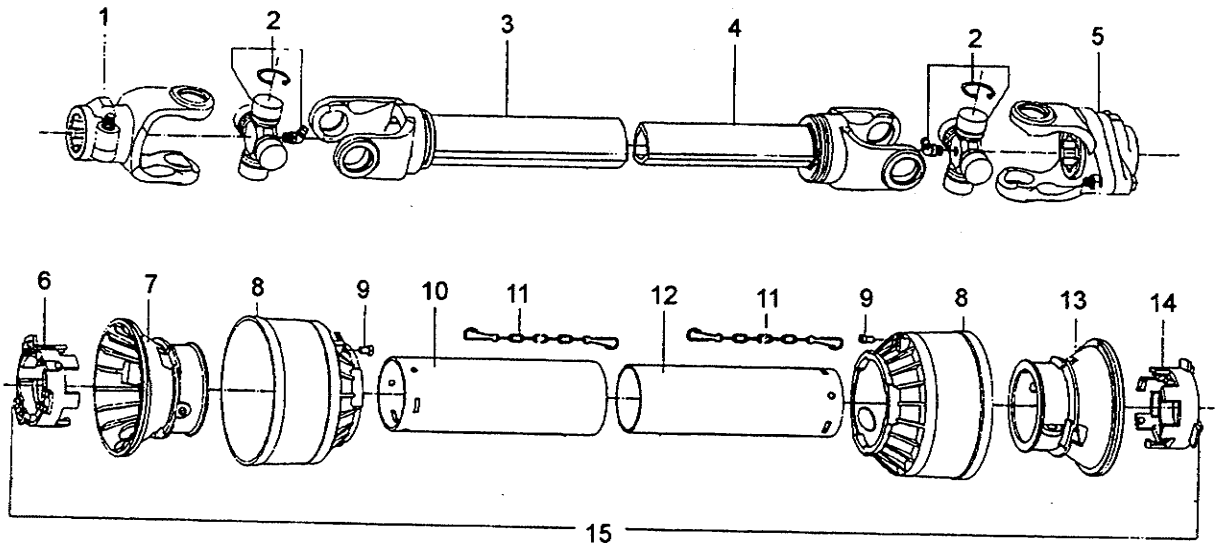
GEARBOX
REAR PTO-DRIVEN TILLER



GEARBOX
REAR PTO-DRIVEN TILLER

ITEM #	BEFCO PART #	DESCRIPTION	QTY.
1	001 0192	Oil seal 40.68.10	2
2	001 2149	Bearing 6208	2
3	001 0182	Ring gear complete	1
4	000 3038	Nut M12	3
5	000 1077	Washer M12	4
6	503 490B	Jam Nut M12	2
7	001 0177	Breather cap	1
8	001 0175	Plate	1
9	010 1215	Bolt 10x140	2
10	000 1042	Nut M12	2
11	001 0171	Bolt 8x50	8
12	001 0164	Gearbox housing with hole	1
13	031 0158	Hexagonal shaft 50"	-
14	001 0148	Spacer	1
15	330 0101	Gearbox housing without hole	1
16	003 0092	Cover	1
17	003 4098	Oil seal 40.60.10	1
18	003 0094	Bearing 6306	1
19	001 0143	Outer cover left	1
20	000 6349	Bolt 10x20	-
21	001 0118	Sprocket Z9	1
22	001 0122	Snap ring 30 external	1
23	001 0119	Sprocket Z22	1
24	004 2122	Snap ring 35 external	1
25	001 0727	Drain plug	1
26	000 8601	Gasket	2
27	000 1806	Nut M8	8
28	000 7716	Bolt 12x45	4
29	001 0168	Metal cover	1
30	003 4196	Spacer washer	1
31	000 2295	Oil seal 35.62.10	1
32	002 5332	Bearing 6207	2
33	001 0196	Spacer	1
34	001 0187	Pinion gear	1
35	003 0156	Nut M10	2

ITEM #	BEFCO PART #	DESCRIPTION	QTY.
1	022 001E	Yoke 1 3/8 6	1
2	012 130E	Cross, Bearing	2
3	194 2040C	Outer Tube & Yoke	1
4	195 2043C	Inner Tube & Yoke	1
5	220 001E	Yoke Sheerbolt	1
6	178 2210C	Tube Bearing Outer	1
7	178 4201C	Outer Tube Rigid Cone	1
8	178 4203C	Soft Cone	1
9	178 4212C	Pin For Stop Rotation	2
10	177 3034C	Outer Shield	1
11	016 025E	Chain	2
12	187 2034C	Inner Shield	1
13	175 4202C	Inner Tube Rigid Cone	1
14	178 2211C	Tube Bearing Inner	1
15	940 2434C	Shield Complete	1
	050 0406	PTO Complete T30 Tiller	



NOTES

NOTES

WARRANTY REGISTRATION

BEFCO, Inc.
P.O. Box 6036
Rocky Mount, NC 27802-6036 **Tel.: (919) 977-9920 - Fax: (919) 977-9718**

Dealer Account #	Retail Customer
Street Country	Street Country
Town State Zip	Town State Zip
Date of delivery Invoice #	Phone
Model # Serial #	Date

Pre-Delivery Check List:

- ☐ Oil in gearbox.
- ☐ Greased fittings.
- ☐ Safety guards in place.
- ☐ All hardware tight.
- ☐ Blades bolts torqued correctly.
- ☐ Attached unit to tractor. Yes/No.
- ☐ Field adjusted. Yes/No.
- ☐ Test run. Dry/Infield.
- ☐ Instruction Sticker.
- ☐ Operator's manual.

The machine described above, had been prepared for delivery according to the Pre-Delivery Check List and the Customer has been instructed in its care and operation and the condition of warranty.

Inspected by: _____

Date: _____

Dealer's Signature: _____

TRACTOR MAKE _____
MODEL _____; HP _____
Type of operation: wheat and corn stalks, sunflowers, artichokes, potatoes, though mowing assignments, bushes, airport maintenance, road maintenance, others: _____
_____
Approximate number of acres the machine will be used on annually: _____

I hereby acknowledge that:
I have received an accepted delivery of the machine described.
The equipment was checked thoroughly for loose or missing parts and has been adjusted in accordance with the pre-delivery checklist.
I have read and understand the nature and extent of the warranty and understand clearly that there were and are no other representations of warranties either express or implied, made by anyone. I have been advised on proper operation, maintenance and lubrication procedure of this equipment.
I have been instructed on and do understand the application, limitation and capacities this equipment was designed and recommended for, all as described in the operator's manual and literature published by the Company.

Date: _____

Customer's Signature: _____

This Delivery and Warranty Registration Form must be filled out and returned, by registered letter, within 14 days to the Company.

Sender:

Fold here

Place stamp here

BEFCO, Inc.

Warranty Department
P.O. Box 6036
Rocky Mount, NC 27802-6036

Cut along this line

8 - WARRANTY

BEFCO's responsibility will be limited to substitution of the acknowledged defective merchandise to the same place of delivery as the previous one was supplied.

1. LIMITED WARRANTY

BEFCO Inc. herein referred to as the Company, warrants its machines and related accessories, hereafter referred to as the Machine, to be free from defects in material and workmanship, for a period of twelve (12) months from the date of invoice to the first registered owner; this limited warranty does not apply to and excludes shear pins, oil, grease, tires, tubes, hydraulic hoses, knives and PTO shafts.
Labor will be reimbursed at $22.00 per hour based on BEFCO's time schedule.
Cost of transport to the servicing dealer is the responsibility of the customer.
Warranty coverage shall not be transferable from the first owner to any subsequent owner.

2. DISCLAIMER OF ALL OTHER WARRANTIES AND REMEDIES

Neither the company nor any company affiliated with the company makes any warranties, representations or promises, expressed or implied, as to the quality, performance or application of its products other than those set forth herein and does not make any implied warranty of merchantability or fitness.
The only remedies the purchaser has in connection with the breach or performance of any warranty on the company's machine are those set forth herein. In no event will the dealer, the company or any company affiliated with the company, be liable for:

a. **Injuries or damages of any kind or nature, direct, consequential or contingent to person or property.**
b. **Any expenses incurred by the owner to repair, replace or rework any allegedly defective item.**
c. **Any loss, cost, forfeiture or damages (including loss of profits; loss of crops; loss because of delay in field operations; any expenses or loss incurred for labor, supplies, substitute machine rental; liabilities of the owner to its customers or third persons; and all other consequential damages, losses, liabilities or damages for any other reasons) whether direct or indirect, and whether or not resulting from or contributed to by the default or negligence of the company, its agents, employees and subcontractors which might be claimed as a result of the use or failure of the equipment delivered.**

The company's liability based on this limited warranty or any other applicable laws shall be limited to replacement or refund of the purchase price of the product.
The limited warranty extended herein gives you specific rights and you may also have other rights which vary from state to state. Neither the dealer nor the company personnel has the authority to make any representation or to modify the terms and limitations of this warranty in any way.
Other than the limited warranty extended hereby there is no other express warranty in connection with the design, safety or use of any of the company's products except as to title.
All implied warranties are expressly disclaimed pursuant to the terms of this warranty.

3. CUSTOM WORK

If the Machine is used for commercial purposes such as custom work, the period warranted for the Machine is limited to six (6) months from the date of delivery to the first registered owner and does not cover any labor charges incurred.

4. RENTAL

If the Machine is used for rental purposes the period warranted for the Machine is limited to thirty (30) days from the date of delivery to the first registered owner and does not cover any labor charges incurred.

5. REGISTRATION

In order to qualify for coverage on this limited warranty, the product and name of the original purchaser must be registered with the Company by mailing a completed Machine Delivery and Warranty Registration along with a copy of the dealer's invoice to the first registered owner to the Company within fourteen (14) days after the date of delivery to the original purchaser.

6. WARRANTY SERVICE

Warranty Service must be performed by a dealer authorized by BEFCO. If the warranty service requested is approved, the owner shall pay only for labor beyond the rate allowed, for overtime labor, and for any mileage charge for transporting the equipment to and from the dealer's shop. It is assumed that the dealer has the appropriate general and special tools to service the machine. Time required for replacement of knives. oil, grease and to remove excessive dirt from the Machine is not subject to reimbursement by the Company. The owner is required to clean the Machine before presenting it to the dealer for service work. The machine must be delivered within thirty (30) days after failure date by the owner to the dealer to be eligible for warranty consideration.

7. UNAPPROVED SERVICE OR MODIFICATION

All obligations of the Company under this limited warranty shall be terminated if:

a. proper Service and Operation Instructions as outlined in the Owner's Manual and on the instruction sticker on the Machine, are not followed.
b. The Machine is modified or altered in any way not approved by the Company.
c. The Company does not receive a copy of the dealers invoice to the first registered owner within fourteen (14) days from the date of delivery.
d. The Company has not been paid in full, by the dealer, for the machine.

8. ACCIDENTS AND NORMAL MAINTENANCE

This limited warranty covers defective material and workmanship. It does not cover depreciation or damage caused by normal wear, accidents, improper maintenance, improper protection or improper use. The costs of normal maintenance or repairs for accidents or improper use, and related labor will be borne by the owner.

NOTES

NOTES